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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Stig Jansson et al) Group Art Unit:1654
SERIAL NO: 09/807,704) Examiner: Randall O. Winston
FILED: April 17, 2001) **EXPEDITED PROCEDURE**
TITLE: PROCESS FOR SEPARATING LIPIDS AND PROTEINS FROM) **AMENDMENT AFTER FINAL**
BIOLOGICAL MATERIAL

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AMENDED CLAIMS

Claims 1-12 (cancelled)

Claim 13. (currently amended) A process for separating elements from a material comprising lipids and proteins, said material having a biological origin, comprising the steps of:

freezing the material;

mechanically treating the material;

determining a denaturing temperature of the material;

~~thawing the frozen mechanically treated~~ heating the material to a temperature of 0°C to 60°C, wherein said temperature is below a ~~approaching but below the~~ determined denaturing temperature of the material; and then

separating a composition comprising protein and at least one of the group consisting of fat and lipid from the ~~thawed~~ heated material ~~at a temperature of 0°C to 60°C, wherein said temperature is below the denaturing temperature of the material,~~ and wherein said lipid if present is a liquid, and wherein said protein is not denatured during the separation;

~~and wherein said process further comprises a determining step prior to the thawing step comprising determining a denaturing temperature for the material.~~

Claim 14. (currently amended) The process according to claim 13, wherein the freezing and ~~thawing~~ heating steps are performed continuously.

Claim 15. (currently amended) The process according to claim 13, wherein the freezing and ~~thawing~~ heating steps are performed semi-continuously.

Claim 16. (currently amended) The process according to claim 13, wherein in the freezing step the material is frozen to a temperature of -3°C to -50°C , ~~preferably to a temperature of -5°C to -28°C .~~

Claim 17. (currently amended) The process according to claim 13, wherein the mechanically treating step of the material includes at least one of mechanical processing step from the group consisting of grinding, milling, chopping and pressing.

Claim 18. (previously presented) The process according to claim 13, wherein the composition in said separating step is a non-denatured oil comprising non-denatured proteins.

Claim 19. (previously presented) The process according to claim 13, wherein the material is a grax, wherein said grax is the material remaining after said separating step.

Claim 20. (previously presented) The process according to claim 19, wherein the composition of said separating step further comprises trace elements.

Claim 21. (previously presented) The process according to claim 20, wherein said trace elements are vitamins.

Claim 22. (previously presented) The process according to claim 13, further comprising an isolating step comprising isolating at least one component of said composition of said separating step from the composition.

Claim 23. (previously presented) The process according to claim 13, further comprising an adding step comprising using a grax as a nutritional additive in food or feed, wherein said grax is the material remaining after the separating step.

Claim 24. (currently amended) The process according to claim 13, wherein the process is performed under at least one of the group consisting of under a condition including a vacuum and under an inert atmosphere.

Claim 25. (previously presented) The process according to claim 13, further comprising a pre-treating step comprising pre-treating the material by adding a pre-treatment compound to the material prior to mechanically treating the material.

Claim 26. (previously presented) The process according to claim 25, wherein said pre-treatment compound is at least one of the group consisting of an enzyme, a solvent, an emulsion-bursting material, and an emulsion-inhibiting solution.

Claim 27. (previously presented) The process according to claim 13, further comprising a pre-treating step comprising pre-treating the material by adding a pre-treatment compound to the material subsequent to mechanically treating the material.

Claim 28. (previously presented) The process according to claim 27, wherein said pre-treatment compound is at least one of the group consisting of an enzyme, a solvent, an emulsion-bursting material, and an emulsion-inhibiting solution.

Claim 29. (previously presented) The process according to claim 13, wherein at least one anti-oxidant is added in at least one step of the process.

Claim 30. (currently amended) The process according to claim 13 wherein in the denaturing step the ~~denaturing~~ determining temperature is determined by visual observation.

Claim 31. (currently amended) The process according to claim 13, wherein in the denaturing step the ~~denaturing~~ determining temperature is determined by viscosity measurement.

Claim 32. (previously presented) The process according to claim 13 wherein the freezing of the material occurs at a rate of over 1° C per minute.

Claim 33. (cancelled)

Claim 34. (new) The process according to claim 13 wherein said mechanically treating step occurs before said freezing step.